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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,575	08/11/2008	Cheong-Dam Song	CU-8982	8057

26530 7590 09/15/2011  
LADAS & PARRY LLP  
224 SOUTH MICHIGAN AVENUE  
SUITE 1600  
CHICAGO, IL 60604

EXAMINER
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JOSHI, SUNITA

ART UNIT	PAPER NUMBER
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2614

MAIL DATE	DELIVERY MODE
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09/15/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/586,575	<b>Applicant(s)</b> SONG ET AL.	
	<b>Examiner</b> SUNITA JOSHI	<b>Art Unit</b> 2614	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 5) ☒ Claim(s) 1-3 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-3 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 19 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-302)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/11/2008</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Yeong-Dae Yu (KR 2002-0024122A).

**As to Claim 1**, Yeong-Dae Yu teaches *a condenser microphone mountable on a main PCB ( Figure 5a, 5b, [0055])), the condenser microphone comprising: a cylinder-shaped case having one side which is opened and the other side which is closed ( as case 10 on Figure 1 or case 30 of Figure 3, [0038]); a first metal ring inserted into the case for an electrical connection ( # 48b on Figure 3) ; a disk-shaped back plate ( # 12 Figure 1 or # 44 on Figure 3) having a sound hole( 44a, Figure 3) to be connected electrically to the case( # 30, Figure 3) through the first metal ring( # 42, Figure 3, [50, 51]) ; a ring-shaped spacer ( 18, Figure 1, [26] or # 46 on Figure 3, [52]) ; a cylinder-shaped insulating ring having an open top part and an open bottom part to provide electrical insulation and mechanical support( as polar holder 22, Figure 1 [28], # 40 on Figure 3 [51]; a diaphragm ( vibration plate 12, Figure 1 or 48, Figure 3) inserted into the insulating ring( polar holder 22, Figure 1, 40, Figure 3) and facing the back plate( 12, Figure 1, 44 Figure 3) while interposing the spacer ( 18 Figure 1, 45 Figure 3). Also see*

Art Unit: 2614

[26], [27], [28]) *between the diaphragm( # 12 Figure 1, 48 Figure 3) and the back plate ( 12 Figure 1, 44 Figure 3); a second metal ring ( as polar ring 16 as shown in Figure 1) being connected electrically to the diaphragm( vibration plate 12, Figure 1) and supporting mechanically the diaphragm; and a PCB mounted with electronic components( PCB 28 Figure 1, PCB 32 Figure 3) and formed with a sound hole( as sound wave inducing cavity 36 formed in PCB 32. See at least Figure 3, [46]), the PCB being connected to the diaphragm and the back plate through the second metal ring and the case (See at least Figure 1 and 3 connect ring 20, or connect ring 42 for electrically connecting the PCB to backplate 12, 44 and diaphragm 12, 48) the PCB including connection terminals connected to the outside (See at least abstract, Figure 5a, 5b showing the condenser microphone connected to the main board 62 of the communication device).*

**As to Claim 3**, Yeong-Dae Yu teaches the limitations of Claim 1, and the insulating ring as the ring shaped polar holder 22 or 40 on figure 1 and 3), but do not explicitly teach *wherein the insulating ring includes uneven portions formed on one end thereof.*

However, Yeong –Dae Yu do not restrict the shape of the holder 22, 40 to be ring shaped and therefore designing the polar holder of any shape and size would have been obvious to one of ordinary skill in the art. Further, including a ring with uneven portion is also a matter of design choice to one of ordinary skill in the art at the time of invention, and therefore this limitations is not given patentable weight.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yong-Dae Yu ( KR 2002-0024122) in view of Byeong-Sam Yoon ( KR - 20-0332944).

**As to Claim 2**, Yeong –Dae Yu teaches the limitations of Claim 1, but do not explicitly teach *wherein the connecting terminals includes: a first disk-shaped terminal formed on an inside; and a second disk-shaped terminal formed to be apart from the first terminal on an outside and having gas exhaust grooves for exhausting gas generated in an adhering process using an SMD reflow method*. However, Byeong-Sam Yoon in related field (condenser microphone) teaches disc shaped terminals 221, 225,223 and a gas outflow groove for discharging gas produced in an SMD bonding. See at least abstract, Figure 3. At the time of invention, it would have been obvious to one of ordinary skill in

Art Unit: 2614

the art to provide the connecting terminals having disk-shaped terminals and having a gas exhaust groove to discharge toxic gas created among the SMD reflow process. See at least Yeong-Dae YU on [003].

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUNITA JOSHI whose telephone number is (571)270-7227. The examiner can normally be reached on Monday thru Friday 8.00AM -- 5.00P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 5712727499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

### **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
P.O. Box 1450  
Alexandria, Va. 22313-1450

### **Or faxed to:**

(571) 273-8300, for formal communications intended for entry and for informal or draft communications, please label "PROPOSED" or "DRAFT".  
Hand-delivered responses should be brought to:

Customer Service Window  
Randolph Building  
401 Dulany Street  
Arlington, VA 22314

Art Unit: 2614

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*/SUNITA JOSHI/*

*Examiner, Art Unit 2614*

*/CURTIS KUNTZ/*

*Supervisory Patent Examiner, Art Unit 2614*